

# Lawson Associates

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May 28, 2002

Ms. Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 12th Street, S.W.  
Washington, D.C. 20554

Dear Ms. Dortch:

**Subject: RM Docket No. 10425 -- Reply To Comment of BekTeK, Inc.**

We appreciate the comments of Harold E. Price, President of BekTeK that set forth the opposing issues for the RM-10425 limited function EAS controller. We submit this reply to clarify the issues and provide needed information to accurately judge the EAS pass-through petition.

Mr. Price's comments were cast in the context of removing certain functions from a full Part 11 encoder/decoder or decoder-only. Conclusions that might be valid in this context are not so in the context of the Plan A pass-through only option.

The secret to understanding the need and justification for RM-10425 is to understand the different EAS contexts within which the "full Part 11" and the "limited function pass-through" methods operate. Limitations that would be folly for the full Part 11 decoder become wisdom for the small cable and low power decoder. This holds true for the provision of needed EAS services, reliability and small business economics.

## **Context of Plan A Limited-function EAS Decoder/Controller.**

**Relevance to Second Report and Order.** The RM-10425 EAS pass-through concept embodied in the Petition is in context with those sections of the EAS Second Report and Order that seek a unique solution to enable small cable systems under 5,000 subscribers to economically employ EAS outside of the rigid Part 11 requirements. The technical and economic basis for RM-10425 is the FCC "Plan A" option that provides for the direct pass-through of EAS bulletins carried in the programs of cable and broadcast channels. All that the petition is asking is to allow those channels that do not carry EAS to switch to one that does.

**Elimination of EAS equipment in "Plan A."** In FCC Plan A, all of the full Part 11 EAS equipment and functions are located upstream from the cable headend -- multiple receiver monitoring, data storage, event programming, audio/video bulletin

creation, bulletin priority management and logging of all these processes. The same is true in RM-10425. All channels receive these Part 11 functions upstream of the headend. All of these Part 11 processes are purposely deleted from the pure pass-through decoder/switch controller.

**Sole purpose of RM-10425.** The only purpose of the RM-10425 EAS decoder is to detect, at Part 11 protocol matching standards, the incoming EAS bulletin, and command the all-channel switchers to switch. The only event that is logged is the only event that occurred -- a switch command. There is no LP-1 and LP-2 monitoring. There is no parsing to generate an EAS bulletin. All EAS functions, including redundancy, are provided at the bulletin source, as contemplated in Plan A. It is a pure pass-through.

**Reliability.** Reliability is a positive, not a negative, result from this solution. The entire electronics package of RM-10425 is contained in a circuit board smaller than a person's hand. This *replaces* from three to five interrelated and programmed rack mounted equipment chassis. The operating and maintenance problems and mean time between failure associated with a complex full Part 11 EAS equipment system in a small cable headend are considerably reduced with the simple RM-10425 controller.

**BekTeK context.** The comment made by BekTeK that RM-10425 removes these functions from small cable headends is true, and they oppose it. In context with the need for EAS in small cable and low power headends, however, it is done for an important purpose, and in the spirit of FCC Plan A relief.

These and other issues submitted by BekTeK are answered below in context with the limited function scenarios of the Report and Order.

### **Cost Difference.**

We believe that the commenter underestimated the difference in cost and complexity of EAS systems for small cable systems. An observation of the line items of equipment in the two solutions is helpful. The RM-10425 type EAS Decoder/Controller is composed of a single circuit board about 4 inches square. It is mounted in a modest 1 R.U. rackmount chassis with two wires for control -- the audio monitor input connector and a contact closure output. This EAS Decoder/Controller substitutes for a full Part 11 encoder/decoder or decoder-only with multiple audio, video and control ports, program storage, visual front panel programming and bulletin monitoring, hard copy logging, two or more radio receivers, a video text character generator with EAS and local or remote keyboard inputs and video monitor.

The Plan A Controller is designed to sell for \$650, compared to a full Part 11 encoder/decoder system described above that ranges between \$3,500 and \$4,500 --

before adding IF, baseband or RF comb generator switching components. A saving of \$3,000 on just the EAS control component is significant for small cable systems.

If the system uses composite IF switching, the RM-10425 Controller saves more money by not requiring an IF modulator for converting the baseband character generator to IF for EAS text and audio switching -- another \$600 to \$1,000 of cost saving.

For a small system with only 32 channels, eight of which are local or imported broadcast stations, IF switching equipment for 24 channels will be in the \$1,200 to \$1,500 range for either full EAS or pass-through. A reduction in total system cost from \$6,000 to \$2,000 is, therefore, significant.

For an LPFM station, the proportional cost savings is even more dramatic, where the FM radio switching from normal program to EAS station bulletin is built into the \$650 EAS Controller.

A related operating benefit for small cable systems and low power stations is the simplicity of the pass-through controller and its limited functions and maintenance.

This is a simplified cost estimate. Not all systems will switch at composite IF. Some will have other switching requirements for EAS that will cost more. Others will have more channels. But the savings contributed by the RM-10425 Controller remains a significant number to small cable systems and low power stations.

### **Severely Reduced EAS System?**

The commenter's assertion that the RM-10425 solution provides severely reduced EAS capabilities, and results in an underclass of citizens whose notification options are reduced is misleading, and completely wrong in the context of EAS Plan A requirements.

**Adds regional life-threatening bulletins.** EAS Plan A requirements as found in the Second Report and Order are limited to National Level and Required Monthly and Weekly Tests. These limited EAS bulletins would have originated from remote program sources outside of the cable region. RM-10425 expands these notification options to regional EAS life-threatening bulletins carried by the local designated EAS television and radio stations in the LP-1 and LP-2 coverage area.

Our research documents that local broadcasters working with Local and State Emergency Communications Committees and cable systems, do provide important regional emergency warning services that will be carried by the RM-10425 pass-through system.

Designated EAS broadcast stations are far more responsible than indicated in the commenter's remarks. In the maturing EAS network, and with more rather than less

attention being given to emergency warning preparedness, we found that EAS stations are likely to carry any CEM coded alert, and while weather alerts are commonly carried only on the main station channel, they will carry them on EAS if they are life threatening.

By allowing small cable systems to economically enter the State and Local emergency communications plans with pass-through bulletins, it will expand the network of life-threatening information.

**Adds option of local city telephone override.** There are two versions of RM-10425: EAS-only, and Combined EAS and Local Telephone override. The optional local telephone override version adds local city override service to National and Regional. The decoder/controller's priority system will not allow an EAN or EAS bulletin to be overridden by a local telephone bulletin.

### **EAS Coverage Area.**

**Access to state, local and NWS alerts.** The commenter asserts that: "By allowing the system proposed by RM-10425, the FCC would practically guarantee that the applicable cable systems would not participate in evolving local and state initiatives." We believe that the facts do not support this conclusion.

The pass-through EAS system is based on providing National Level Bulletins, Tests, and voluntary life-threatening bulletins encoded and transmitted by the EAS broadcast station. It is understood that many local weather bulletins will not be carried, but responsible EAS broadcast stations *are* carrying local life-threatening bulletins on EAS. Our premise is, after discussing the issue with committee members and broadcasters, that the State and Local Committees are capable and willing to adopt small cable system pass-through participants into their plans on this basis.

**Too few bulletins.** The commenter is concerned that the small cable system may not be able to find a broadcast station in its line-up that carries EAS into the system's location. That is a remote possibility, although we do not have record of such a situation. All stations in the line-up are required to provide National Level Bulletins and Tests.

The apparent implication is that there will be no broadcast stations to provide pass-through local and regional EAS bulletins for the small cable system. This is a possibility in the rare situation where the cable system is outside the market areas of all broadcast stations carried. The small cable operator would, in this case, have the options of (1) purchasing a full Part 11 system or (2) either an RM-10425 EAS pass-through or EAS pass-through plus local telephone limited function system or (3) not participate. Economics will be the controlling issue.

In such a case, where all counties covered are outside the cable service area, RM-10425 can be selectively programmed to delete voluntary bulletins for those irrelevant counties.

**Too many bulletins.** The commenter also fears that the cable system will receive too many EAS bulletins, because the station coverage may be far greater than the cable coverage. In the *likely* event that the broadcaster does carry CEM and life-threatening weather bulletins for its market area, RM-10425 can exclude counties other than the cable system location for switching. This eliminates the commenter's fear about too many EAS bulletins.

This ability to preselect county codes for pass-through is in keeping with Paragraph III, B, 1, 45 of the Report and Order released on February 22, 2002.

The RM-10425 decoder recognizes all of the existing and new bulletin codes.

### **Logging.**

There is no requirement for logging EAS bulletins on channels passed through in Plan A. It is recognized, however, that the pass-through EAS decoder is monitoring a common EAS source station in the cable headend. A two-digit counter displays the number of EAS events switched in a given time period.

### **Redundancy.**

The pass-through decoder depends on the multiple EAS monitoring receivers at the EAS source station. RM-10425 does not insert itself as an added LP monitoring level.

If maintenance requires a broadcast channel to be removed from air, it is highly probable that the cable system has more than one broadcast channel in its line up to connect to the decoder/switch controller. We believe that monitoring two television stations (four or more LP's) is not justified against the added cost and complexity.

### **Loss of Some Audible Header Noise.**

The pass-through bulletin includes the EAS two-tone alert signal. There is, however, a loss of some of the header noise before and after the bulletin. We rely on the Commission to decide the importance of the presence of header noise, but demonstrations have not been met with viewer concern.

### **Single Vendor Solution.**

It is true that Lawson Associates, a creator of many successful program automation and EAS innovations for the cable industry since 1970, is the only company that has developed and demonstrated an EAS solution tailored to the concerns of the

Commission outlined in the Plan A, Plan B, and Best Practices provisions of the Second Report and Order. The technology is state-of-the-art, and any company that should decide to provide equipment to meet the RM-10425 standards could do so without patent restriction. The Lawson product is under contract for EAS distribution, however.

### **Conclusions.**

The conclusion of the commenter is: "The end result of these lost functions is a system that has far less reliability, enforceability and general utility." We, in our reply, believe evidence supports that the specific design criteria of RM-10425 results in a calculated and reasonable measure of reliability and enforceability, and that it provides greater utility than the original Plan A concept. RM-10425 fits into the State and Local Emergency Communications plans as a practical partner to economically and technically expand life-threatening emergency information.

The cost of RM-10425 is more than the original Plan A pass-through concept that turned out to be impracticable due to the unavailability of cable network EAS sources. The cost is less, however, than full Part 11 EAS systems. It is less complex to install, program and maintain in small cable system headends.

This reply is intended to provide more complete descriptions of RM-10425, and place the comments opposing RM-10425 in the context of the problems and solutions foreseen in the Second Report and Order.

Respectfully submitted,

/s/

Kenneth D. Lawson  
President  
Lawson Associates